

## AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A polymer composition comprising:  
a co-polymer comprising at least a first and a second monomer, wherein the first monomer comprises glycolic acid (GA) as a co-polymer with at least one other, and wherein the second monomer comprises a bioresorbable monomer, or  
a functional derivative of said co-polymer[[,]];  
wherein the polymer composition has ~~having~~ a tensile strength of at least 1100MPa; and  
wherein the polymer composition has a tensile modulus of at least 20 GPa.
2. (Currently Amended) The polymer composition ~~as claimed in~~ of claim 1,  
wherein the polymer composition comprises a blend of the co-polymer and at least one other polymer in which there are two bioresorbable monomers.
3. (Currently Amended) The polymer composition ~~as claimed in~~ of claim 1, ~~in which the at least one other bioresorbable~~ wherein the second monomer is comprises  
polylactic acid (PLA).
4. (Currently Amended) The polymer composition ~~as claimed in~~ of claim 3 ~~1, in which the at least one other bioresorbable monomer is~~ wherein the second monomer comprises  
poly L-lactic acid (PLA).
5. (Currently Amended) The polymer composition ~~as claimed in~~ of claim 1, ~~in which the GA~~ wherein the polymer composition is comprises at least 70% glycolic acid.

6. (Currently Amended) The polymer composition ~~as claimed in~~ of claim 5, ~~in~~, ~~which the GA wherein the polymer composition is~~ comprises at least 75, ~~80, 85, 90 or 95%~~ glycolic acid.

7. (Currently Amended) The polymer composition ~~as claimed in~~ of claim 6 [[4]], ~~in which wherein the polymer composition is around~~ comprises about 95% glycolic acid.

8. (Currently Amended) The polymer composition ~~as claimed in~~ of claim 6 [[4]], ~~in which wherein the polymer composition is around~~ comprises about 98% glycolic acid.

9. (Cancelled)

10. (Cancelled)

11. (Currently Amended) The polymer composition ~~as claimed in~~ of claim 1, ~~in~~ ~~which wherein the polymer composition has~~ fibres have a tensile modulus of at least 21GPa.

12. (Currently Amended) The polymer composition ~~as claimed~~ of claim 1 ~~11~~, ~~in~~ ~~which wherein the polymer composition has~~ fibres have a tensile modulus of at least ~~22GPa~~ 220GPa.

13. (Currently Amended) A process for the manufacture of a the polymer composition ~~as claimed in~~ of claim 1, ~~which includes the steps of comprising:~~

a) forming ~~the~~ a polymer composition into fibers, wherein the polymer composition comprises comprising  
a co-polymer comprising a first and a second monomer, wherein the first monomer comprises glycolic acid, and wherein the second monomer comprises a as a copolymer with at least one other bioresorbable monomer, or

a functional derivative of the co-polymer thereof, into fibre;

b) quenching the fibers ~~fibres~~; and

c) ~~thereafter~~ drawing a localized region of the fibers by subjecting the quenched ~~fibers~~ fibres to a tension ~~under conditions whereby a defined region of the tensioned fibres is drawn.~~

14. (Currently Amended) The process ~~according to~~ of claim 13, ~~in which~~ wherein ~~the fibre~~ forming the polymer composition into fibers comprises ~~method~~ is melt extruding ~~extrusion~~ or solution spinning the polymer composition.

15. (Currently Amended) The process ~~according to~~ of claim 13, ~~in which~~ wherein drawing a defined region of the fibers further comprises ~~the quenched, tensioned fibres are subjected to zone-heating~~ the fibers.

16. (Currently Amended) The process ~~according to~~ of claim 13, wherein drawing a defined region of the fibers comprises ~~in which the quenched, tensioned fibres are subjected to at least two separate drawing steps, each drawing step performed under identical or different conditions.~~<sup>1</sup>

17. (Currently Amended) An ~~artefact~~ article comprising ~~a~~ at least one polymer composition, wherein the at least one polymer composition comprises the polymer composition of ~~or the functional derivative thereof according to claim 1.~~

18. (Currently Amended) The ~~article~~ artefact of claim 17, wherein the at least one polymer composition further comprises ~~comprising~~ at least two a second polymer composition ~~components.~~

19. (Currently Amended) The ~~artefact~~ article of claim ~~18~~ 17, wherein the article comprises ~~comprising~~ 10% to 80% by volume of the polymer composition ~~or the functional derivative.~~

20. (Currently Amended) The ~~artefact~~ article of claim ~~18~~ 17, ~~in which at least one of the~~ wherein the second polymer composition components is comprises at least one bioresorbable polymer.

21. (Currently Amended) The ~~artefact~~ article of claim 20, ~~in which~~ wherein the bioresorbable polymer comprises a poly-hydroxy acid, a poly-lactic acid, a poly-caprolactone, a poly-acetal or a poly-anhydride.

22. (Currently Amended) The ~~artefact~~ article of claim ~~17~~ 18, wherein the second polymer composition comprises ~~comprising~~ at least one non-bioresorbable polymer component.

23. (Currently Amended) The ~~artefact~~ article of claim 22, wherein ~~in which~~ the at least one non-bioresorbable polymer component comprises poly-propylene, poly-ethylene, poly-methyl methacrylate or epoxy ~~epoxy~~ resin.

24. (Currently Amended) The ~~artefact~~ article of claim 17, further ~~containing~~ comprising at least one non-polymeric component.

25. (Currently Amended) The ~~artefact~~ article of claim 24, ~~in which~~ wherein the at least one non-polymeric component comprises a ceramic, hydroxyapatite or tricalcium phosphate.

26. (Currently Amended) The ~~artefact~~ article of claim ~~24~~ 25, ~~in which~~ wherein the at least one non-polymeric component comprises a bioactive component ~~factor~~.

27. (Currently Amended) The ~~artefact~~ article of claim 26, ~~in which~~ wherein the bioactive component comprises a natural or engineered protein, a ribonucleic acid, a deoxyribonucleic acid, a growth factor, a cytokine, an angiogenic factor or an antibody.

28. (Currently Amended) The article ~~artefact according to~~ of claim 17, ~~in which~~ wherein the ~~artefact~~ article comprises ~~is in the form of~~ a medical device.

29. (Currently Amended) The ~~artefact~~ article of claim 28, ~~in which~~ wherein the medical device comprises ~~is~~ a suture, a scaffold for tissue engineering or implantation, an orthopaedics implant, a complex shaped device or a bone fixation device.

30. (Currently Amended) A process ~~to manufacture of the artefact for~~ manufacturing an article comprising the polymer composition of claim 1, the process comprising according to claim 17, comprising the steps of:

a) placing ~~appropriate lengths of the strengthened glycolic acid polymer composition comprising glycolic acid (GA) as the co-polymer with the at least one other bioresorbable monomer, or the functional derivative of said co-polymer, having the tensile strength of at least 1100MPa,~~ into a mold ~~moulds~~;

b) adding to the polymer composition ~~and mixing any other components a component selected from the group consisting of polymers, bioresorbable polymers, non-polymeric components, and combinations thereof to the polymer composition;~~ and

c) compression ~~moulding~~ molding to the desired shape.

31. (Currently Amended) A ~~The process to manufacture of the artefact according to claim 17, comprising the steps of~~ for manufacturing an article comprising the polymer composition of claim 1, the process comprising:

a) combining the forming a polymeric component in the presence of strengthened glycolic acid polymer composition of claim 1 with at least one monomer or other precursor comprising glycolic acid (GA) as the co-polymer with the at least one other bioresorbable monomer, or the functional derivative of said co-polymer, having the tensile strength of at least 1100MPa; and[[:]]

b) ~~in-situ curing of the~~ at least one monomer ~~monomers or other precursors precursor in situ to form said polymeric component and artefact.~~

32. (Currently Amended) The process ~~for the manufacture of claim 30 the artefact~~ according to claim 17, which includes the step of:

~~compression moulding other polymeric, non-polymeric or blend of polymeric and non-polymeric components in the presence of said fibers, wherein adding a component selected from the group consisting of polymers, bioresorbable polymers, non-polymeric components, and combinations thereof to the polymer composition is carried out prior to placing the polymer composition into the mold.~~

33. (Canceled)

34. (Canceled)

35. (Currently Amended) The process of claim 34 ~~31, in which~~ wherein curing the monomer or other precursor in situ ~~used~~ does not comprise liberating ~~liberate~~ a by-product on polymerization ~~polymerisation~~.

36. (Currently Amended) The process of claim 34 ~~31, in which~~ wherein curing the monomer or other precursor in situ comprises ~~at least one of the monomers is~~ a ring opening ~~monomer that opens to~~ reaction that forms ~~form~~ a poly hydroxyl acid.

37. (Currently Amended) The process of claim 36, ~~in which~~ wherein combining the polymer composition with at least one monomer or precursor comprises combining the polymer composition with at least one monomer comprising is a lactide, a glycolide, a caprolactone, a carbonate or mixtures thereof.

38. (Currently Amended) An ~~artefact~~ article comprising at least one polymer composition, wherein the at least one polymer composition comprises a polymer composition, or the functional derivative thereof produced by the process ~~according to~~ of claim 13.

39. (Previously Presented) The ~~artefact~~ article of claim 38 wherein the at least one polymer composition further comprises ~~comprising~~ at least two a second polymer composition components.

40. (Currently Amended) The ~~artefact~~ article of claim ~~39~~ 38, wherein the article comprises ~~comprising~~ 10% to 80% by volume of the polymer composition or the functional derivative thereof.

41. (Currently Amended) The ~~artefact~~ article of claim 38, ~~in which~~ wherein at least one of the polymer composition or the second polymer composition ~~components~~ is a bioresorbable polymer.

42. (Currently Amended) The ~~artefact~~ article of claim 41, ~~in which~~ wherein the bioresorbable polymer comprises a poly-hydroxy acid, a poly-lactic acid, a poly-caprolactone, a poly-acetal or a poly-anhydride.

43. (Currently Amended) The ~~artefact~~ article of claim 38, further comprising at least one non-bioresorbable polymer component.

44. (Currently Amended) The ~~artefact~~ article of claim 43, ~~in which~~ wherein the at least one non-bioresorbable polymer component comprises poly-propylene, poly-ethylene, poly-methyl methacrylate or epoxy resin.

45. (Currently Amended) The ~~artefact~~ article of claim 38 further comprising ~~containing~~ at least one non-polymeric component.

46. (Currently Amended) The ~~artefact~~ article of claim 45, ~~in which~~ wherein the at least one non-polymeric component comprises a ceramic, hydroxyapatite or tricalcium phosphate.

47. (Currently Amended) The ~~artefact~~ article of claim ~~45~~ 46, ~~in which~~ wherein the at least one non-polymeric component comprises a bioactive component ~~factor~~.

48. (Currently Amended) The ~~artefact~~ article of claim 47, ~~in which~~ wherein the bioactive component comprises a natural or engineered protein, a ribonucleic acid, a deoxyribonucleic acid, a growth factor, a cytokine, an angiogenic factor or an antibody.

49. (Currently Amended) The ~~artefact~~ article of ~~according to~~ claim 38, ~~in which~~ wherein the ~~artefact~~ article comprises ~~is in the form of~~ a medical device.

50. (Currently Amended) The ~~artefact~~ article of claim 49, ~~in which~~ wherein the medical device comprises ~~is~~ a suture, a scaffold for tissue engineering or implantation, an orthopaedics implant, a complex shaped device or a bone fixation device.

51. (Currently Amended) A process ~~to for the~~ for the manufacture of the ~~artefact~~ article of claim 38, ~~further the process comprising the steps of:~~

- a) placing ~~appropriate lengths of the strengthened glycolic acid polymer composition or functional derivative thereof comprising glycolic acid (GA) as the co-polymer with the at least one other bioresorbable monomer, or the functional derivative of said co-polymer, having the tensile strength of at least 1100MPa, into a mold~~ moulds;
- b) adding to the polymer composition a component selected from the group consisting of polymers, bioresorbable polymers, non-polymeric components, and combinations thereof ~~and mixing any other components~~; and
- c) compression ~~moulding~~ molding to the desired shape.

52. (Currently Amended) The ~~A~~ A process ~~for the~~ for the manufacture of the ~~article of~~ article of claim 38, ~~further the process comprising the steps of:~~

- a) ~~forming a polymeric component in the presence of~~ combining the strengthened glycolic acid polymer composition or functional derivative thereof with at



least one monomer or other precursor comprising glycolic acid (GA) as the co-polymer with the at least one other bioresorbable monomer, or the functional derivative of said co-polymer, having the tensile strength of at least 1100MPa, ; and[[:]]

- b) in situ curing of the at least one monomer monomers or other precursor in situ precursors to form said polymeric component and artefact.

53. (Currently Amended) The process of ~~for the manufacture of the artefact according to claim 51 38, which further includes the step of:~~

compression moulding molding other polymeric, non-polymeric or blend of polymeric and non-polymeric components in the presence of said fibres wherein adding a component selected from the group consisting of polymers, bioresorbable polymers, non-polymeric components, and combinations thereof to the polymer composition is carried out prior to placing the polymer composition into the mold.

54. (Cancelled)

55. (Cancelled)

56. (Currently Amended) The process of claim 52 55, in which wherein curing the monomer or other precursor in situ used does not comprise liberating liberate a by-product on polymerization polymerisation.

57. (Currently Amended) The process of claim 52 55, in which wherein curing the monomer or other precursor in situ comprises at least one of the monomers is a ring opening monomer that opens to reaction that forms form a poly hydroxyl acid.

58. (Currently Amended) The process of claim 52 57, in which wherein combining the polymer composition with at least one monomer or precursor comprises combining the

polymer composition with at least one monomer comprising is a lactide, a glycolide, a caprolactone, a carbonate or mixtures thereof.